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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------|
| 10/075,750  | 02/14/2002  | Claude Gauthier      | 03226.170001;P7188           | 9466             |
| 32615   | 7590        | 05/04/2004           |                              |                  |
| OSHA & MAY L.L.P./SUN<br>1221 MCKINNEY, SUITE 2800<br>HOUSTON, TX 77010 |             |                      | EXAMINER<br>COX, CASSANDRA F |                  |
|   |             |                      | ART UNIT                     | PAPER NUMBER     |
|   |             |                      | 2816                         |                  |

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/075,750 | <b>Applicant(s)</b><br>GAUTHIER ET AL. |  |
|                              | <b>Examiner</b><br>Cassandra Cox     | <b>Art Unit</b><br>2816                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02/18/04.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 19, 30 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-18, 20-29 and 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/27/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

1. Applicant's arguments filed 02/18/04 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9-18, 20-29, and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Jenkins et al. (Measuring Jitter and Phase Error in Microprocessor Phase-Locked Loops, Keith A. Jenkins and James P Eckhardt, IEEE Design & Test of Computers, Apr-Jun. 2000, pp. 86-93).

In reference to claim 12, Jenkins discloses on page 90 (second column, first paragraph) a computer system for estimating jitter in a phase locked loop, comprising: a processor (see page 87, column 1, second paragraph); a memory (not shown, but considered to be an inherent part of a computer); and software instructions stored in the memory adapted to cause the computer system to: obtain a representative power supply waveform having noise; digitize the representative power supply waveform ( $V_{DDA}$ ) having noise (while the reference does not show this it is considered to be inherent because the reference does state on page 89, lines 16-21 that although the

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analog power is provided separately from the digital power, the measurement technique could easily be adapted to designs that use the same power supply for both, hence a digital power supply could be used in place of  $V_{DDA}$ ); simulate operation of the phase locked loop using the digitized representative power supply waveform having noise as a power supply input to the phase locked loop (this is seen to be the digital power supply that the reference states could be used see page 89, lines 16-21); and estimate jitter of the phase locked loop from the simulation (see Figure 6 and entire document). The same applies to claims 1 and 23.

In reference to claim 13, Jenkins also discloses that the representative power supply waveform is obtained from a physical system (see page 87, column 1, second paragraph). The same applies to claims 2 and 24.

In reference to claim 14, Jenkins further discloses that the physical system may comprise a printed circuit board (see page 86, column 2, final paragraph). The same applies to claims 3 and 25.

In reference to claim 15, Jenkins further discloses that the physical system may comprise a chip package (see page 86, column 2, final paragraph). The same applies to claims 4-5, 16, and 26-27.

In reference to claim 17, Jenkins further discloses that the representative power supply waveform is obtained from a location on a physical system adjacent to an intended location of the phase locked loop (see Figure 6 and page 91, lines 5-10). The same applies to claims 6 and 28.

In reference to claim 18, Jenkins discloses on pages 87 (the second paragraph) and 89 (the last paragraph) that the representative power supply waveform is obtained from a simulation of a power supply (this is seen to be accomplished when the injected noise is made to emulate the noise found in a particular system). The same applies to claims 7 and 29.

In reference to claim 20, Jenkins discloses in Figure 3 that the representative power supply waveform comprises a noise waveform combined with a power supply waveform. The same applies to claims 9 and 31.

In reference to claim 21, Jenkins discloses on page 91 that the representative power supply waveform is dependent on at least one selected from the group consisting of temperature (which is disclosed in lines 5-10 on page 91), voltage, frequency, and manufacturing process. The same applies to claims 10 and 32.

In reference to claim 22, Jenkins discloses on page 92 (second column, second paragraph) that the simulation of the phase locked loop is dependent on at least one selected from the group consisting of temperature, voltage, frequency, and manufacturing process. The same applies to claims 11 and 33.

***Allowable Subject Matter***

3. Claims 8, 19, and 30 are allowed.
4. The following is an examiner's statement of reasons for allowance: Claims 8, 19, and 30 are allowed because the closest prior art of record fails to disclose a circuit as shown in Figure because the closest prior art of record fails to disclose a system in

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which the simulation of the power supply is performed using a first simulation tool and the simulation of the phase locked loop is performed using a second simulation tool in combination with the rest of the limitations of the base claims and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

5. Applicant's arguments filed on 02/18/04 have been fully considered but they are not persuasive. Applicant's argument that in the prior art reference (Jenkins) the digitized power supply is not being input to the phase locked loop is not persuasive. Jenkins discloses on page 89, lines 16-21, that while the phase locked loop receives a separate digital and analog power supply the same power supply may be used for both, meaning a digital power supply could be used for  $V_{DDA}$ .

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

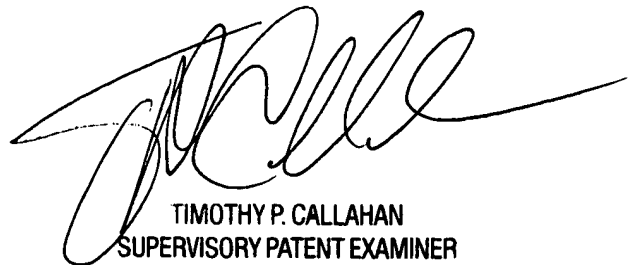
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 571-272-1741. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM and on alternate Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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CC

April 29, 2004



TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
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